



U. S. Army Corps
of Engineers,
St. Louis District

St. Louis Airport Site (SLAPS)



“Gateway to Excellence”



From 1946 to 1966, SLAPS was used to store Manhattan Engineering District (MED)/Atomic Energy Commission (AEC) residue materials generated by uranium separation processes at Mallinckrodt Chemical Works. The process residues included solids from the neutralization and filtration of ore raffinate, which was stored on the ground, and radium-bearing residues that were stored in drums. Barium cake residues were also stored on the ground at the site. Other wastes brought to SLAPS included used dolomite liners and recycled magnesium fluoride liners; tailings from a process to recover uranium from magnesium fluoride slag; 50,000 empty drums; 3,500 tons of radioactively contaminated metal scrap; 2,400 drums containing miscellaneous residues; uranium-containing sand; and radioactive scrap materials. Some of these materials were buried in earthen pits on-site. In 1966, the federal government sold the uranium-bearing residues at SLAPS to Continental Mining and Milling Company. By 1967, the stored residues had been moved by Continental Mining and Milling from SLAPS to another site located at 9200 Latty Avenue in Hazelwood, Missouri for later shipment to Canon City, Colorado. All structures at SLAPS were razed and buried on-site along with 60 truckloads of scrap metal and a vehicle that had become radioactively contaminated. One to 3 feet (ft) of approved borrow material was spread over the entire site to reduce radiation exposure rates to levels in compliance with standards in place at that time (U.S. Department of Energy [DOE], 1997). In 1973, the U.S. Government and the City of St. Louis agreed to transfer ownership of SLAPS by quitclaim deed from the AEC to the St. Louis Airport Authority.

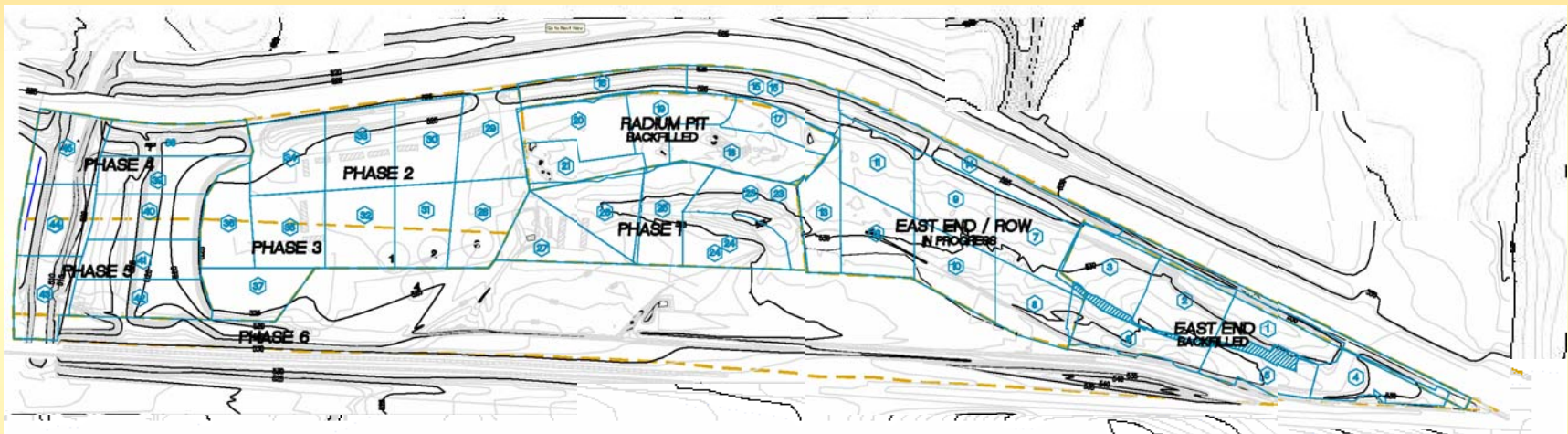


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The site at SLAPS is divided into 8 areas of operation, the East End, the Radium Pits, and Phases 1 through 6. Each region is remediated according to Survey Units. A Survey Unit is a land area of approximately 2000 sq. meters of soil of similar contamination potential or common history. Removal action for the Radium Pits, and the East End, has been completed. Removal action efforts are now being concentrated on Phase 1.



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Radium Pits

The primary purpose of the Radium Pits remedial action was to stabilize the site by removing the highest level of contamination, to further reduce the potential for associated impacts to human health and the environment. Radium Pits remedial actions started on March 1, 2000.



Approximately 50,000 cubic yards of radiologically contaminated soil was transported off site from the Radium Pits area as of August 27, 2000. This area is now backfilled with clean soil and restored with vegetation to provide an area for site office trailers.



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Modular Building



The Modular Building was transferred by the DOE from the Weldon Springs Site of the FUSRAP Program, for the Army Corp of Engineers utilization at SLAPS. The Modular Building became operational at the St. Louis Airport Site May 24, 2001. The Mod Building measures approximately 9,096 square feet and facilitates over 50 personnel. Prior to the arrival of the Mod Building the project departments were divided into on-site and off-site groups. The Modular Building has allowed the SLAPS team to come together in one centralized location increasing communication, effectiveness and efficiency throughout all aspect of SLAPS component of the FUSRAP Project.



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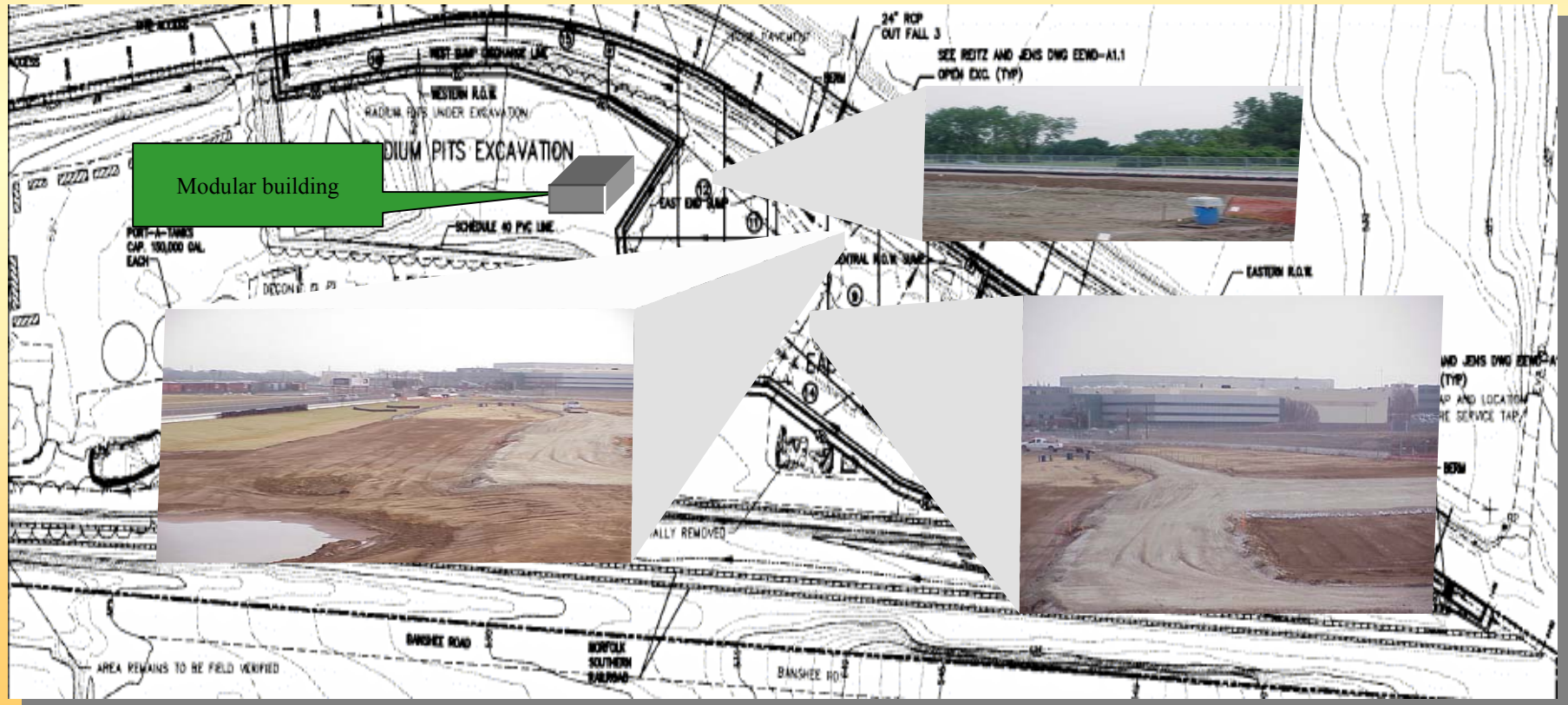
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East End

The East End is approximately 5 acres, separated into, 13 Survey Units, measuring about 2000sq. meters. each. The eastern portion of the East End was cleaned and backfilled in 1999.





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Phase 1 is the first of the 6 phase unit to be remediated. Phase 1 is separated into 5 Survey Units, which is a surface area of approximately 10,000 sq meters.





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Air Monitoring

Portable, general area air monitors are placed on blue plastic barrels and utilized around the perimeters of all working excavations and loadout activities.



Permanent air monitors are placed in secured housing units that are setup around the perimeter of the site to ensure the effectiveness of dust suppression, and effluent radioactive particulate air concentrations.



Breathing zone air monitors are worn on 25% of all workers entering any SLAPS radiologically controlled areas during all work activities.

Breathing zone monitoring along with general area monitors are used to determine what types of air concentrations workers are being exposed to.





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Dust Suppression

Dust is suppressed from becoming airborne by using environmental controls, such as spraying disturbed site soils with water (as shown). Moisture prevents contaminated soil particles from becoming airborne and posing a risk to the site worker and general public.





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Stormwater

The excavation area is bermed and sloped to permit water to be pumped from the open excavation into holding tanks. Technicians can then sample and treat the water, if necessary, for release. Engineering controls are in place to reduce the risk that stormwater might carry contaminated sediments from the open excavation area to off-site.





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Railcar Loading

Workers prepare gondola cars for transporting the SLAPS waste by placing a special liner, called a “burrito bag” in the car. A typical gondola car holds approximately 80 cubic yards of material.





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Loadout Area

Once radiation levels are measured, soil is excavated and moved to the SLAPS load out area beside the railspur. From there, they are sampled and loaded into the specially lined gondola cars. The soil is then transported to an appropriately permitted out-of-state disposal facility.





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Transportation and Disposal

Once the soil is loaded into the railcar, workers seal the “burrito bag”. This stabilizes the soils and allows them to be safely transported to the disposal facility without jeopardizing the integrity of the shipment. As of the January 8, 2002 1,695 gondola cars containing roughly 142,821 cubic yards of soil has been transported and disposed from the Formerly Utilized Site Remedial Action Program at the St. Louis Airport Site.

